

What is claimed is:

1. In an apparatus including a magnesium alloy vessel substantially free of aluminum and zinc, said vessel having a hollow interior cavity containing a working fluid, the improvement comprising: the formation of a stable, protective layer on the inside wall of the vessel, said protective layer establishing compatibility with the working fluid and preventing base metal corrosion by the working fluid, wherein said vessel comprises magnesium in combination with an alloyed and/or dispersion strengthening, gettering metal.
2. The apparatus as recited in claim 1 wherein said stable protective layer is an oxide or nitride protective layer.
3. The apparatus as recited in claim 1 wherein said vessel is a heat pipe and/or a pumped-loop system.
4. The apparatus as recited in claim 1 wherein said gettering metal comprises from about 0.1 - 5 wt % of zirconium.
5. The apparatus as recited in claim 1 wherein the working fluid is ammonia.
6. The apparatus as recited in claim 1 wherein the working fluid is water.
7. The apparatus as recited in claim 1 wherein the gettering metal is selected from the group consisting of zirconium, titanium, hafnium and yttrium.
8. The apparatus as recited in claim 1 wherein the gettering metal comprises about 0.6 wt % zirconium alloy.
9. The apparatus as recited in claim 1, wherein said apparatus is a laptop computer.